

REMARKS**INTERVIEW SUMMARY**

A telephonic interview was conducted on 26 October 2004 between the Examiner and the undersigned attorney. The Examiner issued an Interview Summary on 4 November 2004. Applicants have reviewed that summary and believe that it accurately summarized the interview. Accordingly, Applicants do not believe that any further comments respecting that interview are necessary.

REJECTIONS UNDER 35 U.S.C. § 102

The Examiner has rejected claims 1, 3-7, 10, and 14-17 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,854,327 to Davis et al. According to the Examiner, Davis teaches a similar liner material that is cured by using an accelerator that is devoid of thiuram accelerators. While Davis does not disclose water or aquatic animals, nor the recitation that a majority of the animals remain viable in said water for at least seven days, the Examiner nonetheless believes the same would be inherent.

Reconsideration is respectfully requested in view of amendments made to the claims. In particular, claim 1 has been amended to include recitation to "carbon black."¹ While Applicants acknowledge that Davis '327 teaches EPDM membranes that are useful "for linings for fish ponds,"² and that the membranes are devoid of thiuram accelerators,³ Applicants maintain that the claimed invention is not anticipated by Davis inasmuch as Davis is unambiguously directed toward mineral-filled, white-colored polymeric sheeting;⁴ *i.e.*, carbon black is completely replaced by mineral fillers.⁵ While Davis '327, within the Background, discusses the fact that prior art membranes include carbon black,⁶ there is no teaching or suggestion that the membranes that are devoid of the thiuram accelerators are those that are mineral filled and white in color, *i.e.*, those that are devoid of carbon black. Accordingly, Davis '327 does not anticipate the claimed invention.

Also, Claim 1 has been amended to include recitation to the terpolymer being

¹ Applicants note that independent claims 10 and 25, as well as newly added independent claim 21, include similar recitation.

² Column 16, line 4.

³ Column 8, lines 42-43.

⁴ See Summary of Invention.

⁵ Column 5, lines 57-59.

⁶ Column 1, line 50.

characterized by a crystallinity of less than 1 percent. Applicants acknowledge that the Examiner suggests that Davis '327 inherently teaches an amorphous ethylene-propylene-diene terpolymer having less than 1% crystallinity, and therefore the Examiner maintained that claims 3 and 14 were anticipated.

Reconsideration is respectfully requested, but as the recitation applies to the independent claims (claims 3 and 14 having been cancelled). Those skilled in the art readily appreciate and the prior art is replete with EPDM membranes, particularly those useful for roofing and/or pond liners, that include semi-crystalline or crystalline EPDM; *i.e.*, those EPDMs that have greater than 1% crystallinity. Davis '327 does not teach whether the EPDMs employed therein are crystalline, semi-crystalline, or amorphous. Applicants therefore maintain that it is improper for the Examiner to assume that Davis '327 inherently teaches amorphous ethylene-propylene-diene terpolymer.

With respect to claims 4 and 15, the Examiner believes that Davis '327 teaches liners including various fillers, such as at column 5, lines 51-56, and therefore claims 4 and 15 are anticipated by Davis '327. Inasmuch as claims 4 and 15 depend from independent claims that are now believed to be patentable in view of Davis '327, claims 4 and 15 are likewise believed to be patentable.

With respect to claim 5, the Examiner's rejection thereof has been rendered moot by its cancellation.

With respect to claims 6 and 17, the Examiner contends that Davis '327 teaches a liner material including a processing oil such as disclosed at column 7, line 66. Inasmuch as claims 6 and 17 depend from independent claims that are believed to be patentable, claims 6 and 17 are likewise believed to be patentable.

With respect to claims 7 and 16, the Examiner believes that Davis '327 teaches sulfur as a curing agent. Inasmuch as claims 7 and 16 depend from independent claims that are believed to be patentable, claims 7 and 16 are likewise believed to be patentable.

REJECTIONS UNDER 35 U.S.C. § 103

The Examiner has rejected claims 2 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Davis '327 in view of U.S. Patent No. 5,584,991 to Wittstock et al. While Davis '327 is silent with respect to ammonia oxidizing bacteria and nitrite

oxidizing bacteria, the Examiner relies on Wittstock to satisfy this shortcoming and believes that it would have been obvious to modify Davis '327 in view of Wittstock in order to provide an environmentally friendly means of keeping the water clear. Furthermore, the Examiner has also rejected claims 8, 9, 11, and 12 under 35 U.S.C. § 103(a) as being unpatentable over Davis '327. Particularly, the Examiner believes that the recitation of "saltwater" in claims 8 and 11 would have been obvious depending on the needs of aquatic life in the pond. With respect to claims 9 and 12, which recite that the aquatic animals are shrimp and crayfish, the Examiner believes that it would have been obvious to modify the teachings of Davis '327 by selecting a particular fish/aquatic life to meet aesthetic or production means and does not present a patentably distinct limitation.

Reconsideration is respectfully requested. Applicants maintain that the combination of Davis '327 and Wittstock is improper inasmuch as there is no suggestion or motivation to combine their teachings. Moreover, the independent claims have been amended in a fashion discussed above, and Wittstock does not, even if properly combined with Davis '327, provide any teaching or suggestion to modify Davis '327 in accordance with the presently claimed invention. Likewise, Applicants maintain that there is nothing obvious about the selection of salt water or the selection of shrimp or crayfish.

Applicants submit that in order to appropriately consider whether the claimed invention is obvious, the Examiner must consider the problem that Applicants sought to solve in the context of what was known in the art at the time of the invention. The Federal Circuit has recently emphasized this consideration:

In that vein, this court has previously "reminded . . . the PTO that it is necessary to consider 'the reality of the circumstances' – in other words, common sense – in deciding in which fields a person of ordinary skill would reasonable be expected to look for a solution to problem facing the inventor.⁷

The understanding in the art at the time of Applicants' invention was that EPDM pond liners had a deleterious impact on the survival of shrimp within shrimp ponds or shrimp

⁷ See *In re Alberto Lee Bigio*, 72 U.S.P.Q. 2d 1209 (2004) (citing *In re Oetiker*, 977 F. 2d 1443 (Fed. Cir. 1992)).

farms. See Agricultural Engineering (2001), *Toxicity Tests to Assess the Effect of a Synthetic Tank Liner on Shrimp Survival and Nitrification in a Re-circulating Super Intensive Production System*, and UPAH Tech, Inc. (April 2, 2003). Applicants maintain that in view of the “reality of the circumstances,” that one of ordinary skill in the art would not have necessarily sought a solution to the problem by employing another (albeit distinct) pond liner.

Applicants unexpectedly discovered that by removing thiuram accelerators, which are conventional and common in the manufacture of EPDM membranes, the survival rate of shrimp within ponds that are lined with “thiuram-free” EPDM membranes advantageously increases. Nothing in the prior art of record, particularly Davis ‘327, teaches, suggests, or motivates one skilled in the art to make this change and thereby provide a “shrimp-friendly” membrane.

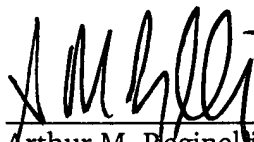
Furthermore, the inclusion of carbon black and the level of crystallinity within the pond liners employed in the presently claimed invention are not trivial. Unlike roofs, which are generally flat surfaces, ponds are, at least, concave in shape. Therefore, to effectively line the pond, a liner should have an advantageous flexibility and strength. Applicants have achieved these properties by employing the claimed membrane.

CONCLUSION

In view of the foregoing amendments and arguments presented herein, the Applicants believe that they have properly set forth the invention and accordingly, respectfully request that the Examiner reconsider the rejections provided in the last Office Action. A formal Notice of Allowance of claims 1-2, 4, 6, 8-13, 15-17, and 25-32 is earnestly solicited. Should the Examiner care to discuss any of the foregoing in greater detail, the undersigned attorney would welcome a telephone call.

The cancellation of claims 18-24 offsets any additional fees that might be due by the addition of claims. In the event that an additional fee required for the filing of this document is missing or insufficient, the undersigned attorney hereby authorizes the Commissioner to charge payment of any fees associated with this communication or to credit any overpayment to Deposit Account No. 06-0925.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'A M Reginelli', is written over a horizontal line.

Arthur M. Reginelli, Reg. No. 40,139

Renner, Kenner, Greive, Bobak, Taylor & Weber

Fourth Floor, First National Tower

Akron, Ohio 44308-1456

Telephone: (330) 376-1242

Attorney for Applicants

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